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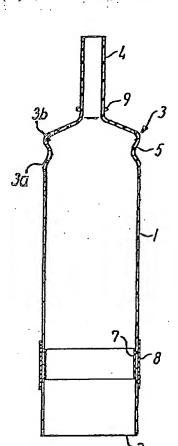
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- (71) Applicant (for all designated States except US): COLO-PLAST A/S [DK/DK]; Holtedam 1, DK-3050 Humlebæk (DK).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): NIELSEN, Henrik, Lindenskov [DK/DK]; Æblevangen 120, DK-2765

- Smørum (DK). NIELSEN, Søren, Kirkegård [DK/DK]; Ordrup Jagtvej 40, DK-2920 Charlottenlund (DK).
- (74) Agents: CARLSSON, Eva et al.; Internationalt Patent-Bureau A/S, Høje Taastrup Boulevard 23, DK-2630 Taastrup (DK).
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(54) Title: EXTERNAL URINARY CATHETER



(57) Abstract: The external urinary catheter for use as an external catheter comprises a tip portion (3) and a sheath portion (1). The external urinary catheter is manufactured by thermoplastic processing of a material comprising at least one transparent and/or thermoplastic elastomer and at least one plasticizer.

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### | EPO-Internal

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|--|--|---|---|
|  |  |   |   |
| C. DOCUM   | ENTS CONSIDERED TO BE RELEVANT   |   |   |
| Category °   | Citation of document, with indication, where appropriate, of the re-   | elevant passages  | Relevant to claim No.   |
| Х  | US 5 376 085 A (CONWAY PHILIP J<br>27 December 1994 (1994-12-27)   | 1   |   |
| Υ  | column 5, line 27 - line 36  | 2-4,17,<br>18   |   |
| Υ<br>.· .  | US 3 861 396 A (LEVINE EDWARD ET 21 January 1975 (1975-01-21) column 3, line 22 -column 4, lin   | 2-4   |   |
| Ÿ  | US 4 534 768 A (OSBURN FRANK G<br>13 August 1985 (1985-08-13)<br>abstract; figures   | 17,18   |   |
| A .  | WO 96 29962 A (MENTOR CORP) 3 October 1996 (1996-10-03) page 7; claims 1,4   |   | 6   |
|  | <br>-  | -/  |   |
| X Furth  | er documents are listed in the continuation of box C.  | X Patent family members are listed in   | annex.  |
| 'A' documer consider earlier of filing da 'L' documer which is citation of documer other me documer later that | t which may throw doubts on priority claim(s) or cited to establish the publication date of another or other special reason (as specified) at referring to an oral disclosure, use, exhibition or eans t published prior to the international filing date but in the priority date claimed | <ul> <li>*T* later document published after the internor priority date and not in conflict with the cited to understand the principle or theor invention</li> <li>*X* document of particular relevance; the claic cannot be considered novel or cannot be involve an inventive step when the document of particular relevance; the claic cannot be considered to involve an inventive account is combined with one or more ments, such combination being obvious in the art.</li> <li>*&amp;* document member of the same patent far</li> </ul> | e application but by underlying the med invention considered to ment is taken alone med invention hive step when the other such docu- to a person skilled |
|  | october 2003   | Date of mailing of the international search   | h-report  |
|  | niling address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL – 2280 HV Rijswijk   | 10/10/2003 Authorized officer   | <del></del>   |
|  | Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,<br>Fax: (+31-70) 340-3016   | Sánchez y Sánchez,  | J   |

| Category °                            | ation) DOCUMENTS CONSIDERED TO BE RELEVANT  |    |                       |   |
|---------------------------------------|---|----|-----------------------|---|
|                                       | Citation of document, with Indication, where appropriate, of the relevant passages                      | F  | Relevant to claim No. |   |
| A                                     | WO 89 11258 A (FAMILY HEALTH INT)<br>30 November 1989 (1989-11-30)<br>the whole document                |    | 8-16,<br>19-22        |   |
| <b>A</b>                              | EP 0 488 021 A (TACTYL TECH INC) 3 June 1992 (1992-06-03) column 2, line 42 -column 3, line 57 claims   |    | 1                     | * |
| Ą                                     | US 6 221 447 B1 (COHEN ROBERT E ET AL) 24 April 2001 (2001-04-24) abstract; claims                      |    | 1                     |   |
| A                                     | US 5 605 164 A (WILSON III THOMAS W) 25 February 1997 (1997-02-25) abstract column 5, line 43 - line 61 |    | 1                     |   |
| A                                     | EP 1 062 957 A (DENKI KAGAKU KOGYO KK) 27 December 2000 (2000-12-27) the whole document                 |    | 1                     |   |
| A<br>,                                | WO 91 17728 A (COLOPLAST AS) 28 November 1991 (1991-11-28) cited in the application                     |    |                       |   |
| A                                     | WO 96 08352 A (ANSELL PERRY INC ; JACKSON ANDREW PATRICK (GB)) 21 March 1996 (1996-03-21)               |    |                       | • |
|                                       |   | P. |                       | i |
| · · · · · · · · · · · · · · · · · · · |   | 1  |                       |   |
|                                       |   |    |                       |   |
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|                                       |   |    |                       |   |

## INTERNATIONAL SEARCH REPORT

information on parent family members

Internation No
PCT/DK 03/00470

|                                       |  | <del></del> |                     |  |   | 17 01 (          | J3/004/0   |
|---------------------------------------|--|-------------|---------------------|--|---|------------------|--|
| `                                     | Patent document cited in search report |             | Publication<br>date |  | Patent family member(s)   |                  | Publication date   |
| \$                                    | US 5376085                             | A           | 27-12-1994          | AU<br>CA<br>DE<br>DE<br>EP<br>JP<br>WO<br>US             | 659117 B2 9094091 A 2095030 A1 69107470 D2 69107470 T2 0556325 A1 6501412 T 9208426 A1 5334175 A 5176666 A  | 1<br>1<br>2<br>1 | 11-05-1995<br>11-06-1992<br>10-05-1992<br>23-03-1995<br>14-09-1995<br>25-08-1993<br>17-02-1994<br>29-05-1992<br>02-08-1994<br>05-01-1993                             |
|                                       | US 3861396                             | Α           | 21-01-1975          | NONE   |   |                  |  |
|                                       | US 4534768                             | A           | 13-08-1985          | NONE   |   |                  |  |
|                                       | WO 9629962                             | A           | 03-10-1996          | AU<br>AU<br>EP<br>JP<br>WO                               | 704557 B2<br>2948295 A<br>0817601 A1<br>11502736 T<br>9629962 A1  | 1                | 29-04-1999<br>16-10-1996<br>14-01-1998<br>09-03-1999<br>03-10-1996   |
| *                                     | WO 8911258                             | A           | 30-11-1989          | AU<br>EP<br>WO<br>US                                     | 3542789 A<br>0417139 A1<br>8911258 A1<br>5169464 A  |                  | 12-12-1989<br>20-03-1991<br>30-11-1989<br>08-12-1992   |
|                                       | EP 0488021                             | A           | 03-06-1992          | US<br>US<br>AT<br>AU<br>CA<br>DE<br>DE<br>EP<br>JP<br>JP | 5112900 A<br>5407715 A<br>137522 T<br>659420 B2<br>8822091 A<br>2055931 A1<br>69119200 D1<br>69119200 T2<br>0488021 A1<br>2090210 T3<br>3253996 B2<br>6025505 A | 2<br>            | 12-05-1992<br>18-04-1995<br>15-05-1996<br>18-05-1995<br>04-06-1992<br>29-05-1992<br>05-06-1996<br>16-01-1997<br>03-06-1992<br>16-10-1996<br>04-02-2002<br>01-02-1994 |
| · · · · · · · · · · · · · · · · · · · | US 6221447                             | B1          | 24-04-2001          | DE<br>EP<br>JP   | 2001012549 A1<br>29717772 U1<br>0964653 A1<br>2000513666 T<br>2002307552 A<br>9822036 A1  |                  | 09-08-2001<br>20-11-1997<br>22-12-1999<br>17-10-2000<br>23-10-2002<br>28-05-1998   |
| . 1                                   | US 5605164                             | Α.          | 25-02-1997          | AU<br>WO<br>US   | 6265796 A<br>9640022 A1<br>5701915 A  |                  | 30-12-1996<br>19-12-1996<br>30-12-1997   |
| :<br>:<br>:                           | EP 1062957                             | A           | 27-12-2000          |  | 2002212366 A<br>2002212365 A<br>2746599 A<br>1062957 A1<br>9945980 A1   |                  | 31-07-2002<br>31-07-2002<br>27-09-1999<br>27-12-2000<br>16-09-1999   |
|                                       | WO 9117728                             | Α           | 28-11-1991          | DK<br>AT   | 120190 A<br>102468 T  |                  | 16-11-1991<br>15-03-1994   |

| • |    | atent document<br>d in search repor | rt | Publication<br>date |  | Patent family member(s)  | Publication date   |
|---|----|-------------------------------------|----|---------------------|--|--|--|
|   | WO | 9117728                             | A  |                     | AU<br>DE<br>DE<br>AU                   | 648562 B2<br>7970991 A<br>69101379 D1<br>69101379 T2<br>9117728 A1               | 28-04-1994<br>10-12-1991<br>14-04-1994<br>16-06-1994<br>28-11-1991                             |
|   |    |                                     |    |                     | DK<br>EP<br>ES<br>JP<br>JP<br>NO<br>US | 528965 T3<br>0528965 A1<br>2050542 T3<br>3176617 B2<br>5506381 T<br>924403 A ,B, | 09-05-1994<br>03-03-1993<br>16-05-1994<br>18-06-2001<br>22-09-1993<br>13-11-1992<br>10-09-1996 |
|   | WO | 9608352                             | Α  | 21-03-1996          | WO                                     | 9608352 A1   | 21-03-1996   |